

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-024112**Date Inspected:** 29-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspector: NA

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

**OBG Trial Assembly**

ZPMC presented QA personnel with "Notification of Witness Inspection" document number 09290 that stated ZPMC was requesting Caltrans to perform visual and magnetic particle (MT) inspections of various OBG segment 13AW welds at the trial assembly area. This QA Inspector performed random visual and magnetic particle (MT) inspections of the following welds.

Item #1: SEG3007H-220, 147, 148, 149, 150, 151, 161, 157, 158, 159, 160, 222, 239, 240, 241, 242, 245, 246, 247, 248, 162, 152, 170, 171, 172, 173, 175, 176, 176, 184, 189, 190, 249, 250, 256, 258, 198, 199, 200, 201, 202, 203, 204, 212, 217, 218, 261, 263, 262, 266, 267, 269.

Items observed by this QA Inspector appeared to comply with AWS D1.5 MT requirements.

Item #1 also lists welds SEG3007H-128 and 129. This QA Inspector visually observed both of these welds were visually rejectable due to having unacceptable overlap, weld contour and slag. This QA Inspector observed weld SEG3007H-255 had a 5mm long linear magnetic particle indication approximately 65 mm from the end of the

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## WELDING INSPECTION REPORT

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weld. This QA Inspector informed ABF representative Mr. Kelvin Cheung and ZPMC QC Inspector Mr. Zhan Hai Feng that an incident report was being issued to document these visual and MT rejections. For additional information on these inspections see this QA Inspector's TL6028 Magnetic Particle Test Report. See the photographs below for additional information.

ZPMC presented QA personnel with "Notification of Witness Inspection" (NWIT) document number 09291 item 1 that stated ZPMC was requesting Caltrans to perform visual (VT) and magnetic particle (MT) inspections of OBG segment 14W welds SEG3020AL-004, 007 in the trial assembly area. This QA Inspector performed random MT and VT inspections of the two welds and items observed appeared to comply with AWS D1.5 MT requirements. For additional information on these inspections see this QA Inspector's TL6028 magnetic particle test report.



### Summary of Conversations:

See Above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey +8615000026784, who represents the Office of Structural Materials for your project.

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**Inspected By:** Dawson,Paul

Quality Assurance Inspector

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**Reviewed By:** Riley,Ken

QA Reviewer

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